UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,826	05/04/2001	Mark C. Smith	13220.011001;P5846	2259

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EXAMINER
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ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/849,826	SMITH ET AL.
	Examiner	Art Unit	
	Tam (Jenny) Phan	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 December 2004</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) <u>11-15</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-5,7-10,16-19 and 21-29</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>04 May 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
     application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Amendment received on 12/21/2004 has been entered. Claims 11-15 have been
withdrawn. Claims 6 and 20 are cancelled. Claims 1, 4, 10, 16, 19, 24, 25, and 29 are
currently amended. Claims 2-3, 5, 7-9, 17-18, 21-23, and 26-28 are previously
presented.

2.   Claims 1-5, 7-10, 16-19, and 21-29 are presented for examination.

Election/Restrictions

3.   Applicant's election **without traverse** of Group I (claims 1-10 and 16-29) in
Amendment received on 12/21/2004 is acknowledged.

4.   Claims 11-15 are withdrawn from further consideration pursuant to 37 CFR
1.142(b) as being drawn to a nonelected invention. Election was made **without**
traverse in Amendment received on 12/21/2004.

5.   Examiner is appreciative of the courtesy shown by Applicant in discussions of
this restriction requirement.

Priority

6.   No priority claims have been made.

7.   The effective filing date for the subject matter defined in the pending claims in
this application is 05/04/2001.

Drawings

8.   In Amendment filed 12/21/2004, applicant indicated that the Examiner has not
formally accepted the drawings filed on May 31, 2001. The Examiner has reviewed the
application file. However, the only formal drawings (Figures 1-14) were found in the

current application file were dated 05/04/2001 which the Examiner had accepted these

drawings in the previous office action.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1-5, 7-10, 16-19, and 21-29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lim et al. (U.S. Patent Number 5,873,096), hereinafter referred to as

Lim, in view of Fenger et al. (U.S. Patent Number 6,751,659), hereinafter referred to as

Fenger.

11.   Lim disclosed a method of fractional [partial] replication in a directory server,

comprising determining a fractional portion of an entry stored on a primary server using

a replication agreement; and replicating the fractional portion from the primary server to

a replica server creating a fractional replica (Title, Abstract, column 3 line 62-column 4

line 9, column 4 lines 43-63, column 11 lines 20-29).

12.   Lim taught the invention substantially as claimed. However, Lim did not expressly

teach connecting a client computer to the fractional replica wherein the client computer

has knowledge of only the fractional replica and wherein the replication agreement

comprises a list of replicated attribute types held in an element.

13.   Lim suggested exploration of art and/or provided a reason to modify the fractional

replication method with the step of connecting a client computer to the fractional replica

wherein the client computer has knowledge of only the fractional replica and wherein

the replication agreement comprises a list of replicated attribute types held in an

element (column 1 lines 50-58).

14.   Fenger disclosed a selective replication method having a step of connecting a

client computer to the fractional replica wherein the client computer has knowledge of

only the fractional replica (Figure 1, column 3 lines 3-13) and wherein the replication

agreement comprises a list of replicated attribute types held in an element (Figure 4A,

column 4 line 52-column 5 line 9, column 6 lines 48-54, column 8 lines 28-37).

15.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the fractional replication of Lim with the teachings of

Fenger to include a step of connecting a client computer to the fractional replica wherein

the client computer has knowledge of only the fractional replica and wherein the

replication agreement comprises a list of replicated attribute types held in an element in

order to allow the client computer to access only relevant data (Fenger, column 3 lines

3-13) and to reduce the amount of required data storage (Lim, column 1 lines 65-67)

since users may only need to refer to a portion of the data and thus they have no need

for the rest of the data (Lim, column 1 lines 61-65).

16.   Regarding claim 2, Lim disclosed a method further comprising using a query rule

to govern responses to questions in the absence of entries on the replica server

(column 5 lines 6-20, column 10 lines 36-49, column 11 lines 6-29).

17.   Regarding claim 3, Lim disclosed a method further comprising using a query rule

to govern responses to questions in the absence of attributes of the entry on the replica

server (column 5 lines 6-20, column 10 lines 36-49, column 11 lines 6-29).

18.   Regarding claim 4, Lim disclosed a method further comprising updating the

fractional portion using a plurality of change types stored in a change record in a

·database (column 8 lines 28-64, column 11 lines 20-29), wherein the change type may

be one from the group consisting of an add operation, a delete operation, a modify

operation, and a moddn operation (column 8 lines 65-column 9 lines 5, column 11 lines

30-61).

19.   Regarding claim 5, Lim disclosed a method wherein an entry filtering rule

database is stored in the replication agreement (column 4 lines 43-62, column 5 lines 6-

21, column 14-34).

20.   Regarding claim 7, Fenger disclosed a method wherein the element is empty and

all attributes of the entry are to be replicated (Figure 1, column 4 line 52-column 5 line

36).

21.   Regarding claim 8, Fenger disclosed a method wherein the list of replicated

attribute types comprises an include list (column 4 line 52-column 4 line 9).

22.   Regarding claim 9, Fenger disclosed a method wherein the list of replicated

attribute types comprises an exclude list (column 3 lines 3-31, column 4 line 52-column

4 line 9).

23.   Regarding claim 10, Lim and Fenger combined disclose a method of fractional

replication in a directory server, comprising: determining a fractional portion of an entry

stored on a primary server using a replication agreement; replicating the fractional

portion from the primary server to a replica server creating a fractional replica; using a

query rule to govern responses to questions in the absence of entries on the replica

server; using a query rule to govern responses to questions in the absence of attributes

of the entry on the replica server; updating the fractional portion using a plurality of

change types stored in a change record in a database; and connecting a client

computer to the fractional replica (Lim, Title, Abstract, column 3 line 62-column 4 line 9,

column 4 lines 43-63, column 5 lines 6-20, column 8 lines 28-64, column 10 lines 36-49,

column 11 lines 6-29); wherein the client computer has knowledge of only the fractional

replica (Fenger, Figure 1, column 3 lines 3-13) and wherein the replication agreement

comprises a list of replicated attribute types held in an element (Fenger, Figure 4A,

column 4 line 52-column 5 line 9, column 6 lines 48-54, column 8 lines 28-37).

24.   Regarding claims 16-19 and 21-23, the directory server system corresponds

directly to the method of claims 1-5 and 7-9, and thus these claims are rejected using

the same rationale.

25.   Regarding claims 25-28, the directory server system corresponds directly to the

method of claims 1-4, and thus these claims are rejected using the same rationale.
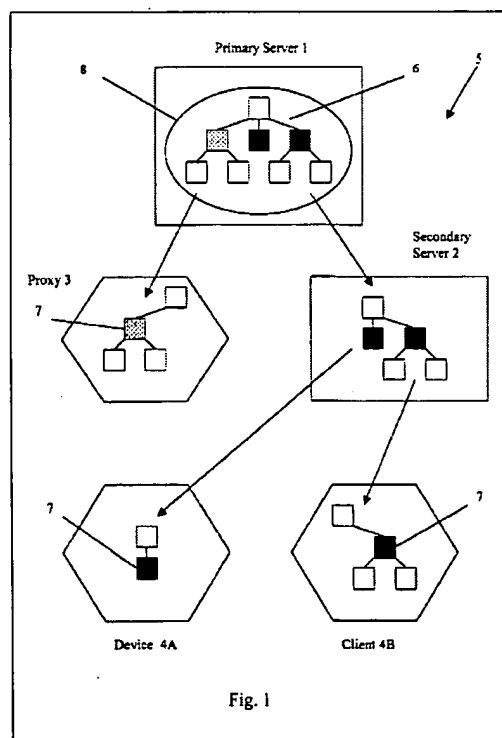
26.   Regarding claims 24 and 29, the directory server system corresponds directly to

the method of claims 10, and thus these claims are rejected using the same rationale.

27.   Since all the limitations of the claimed invention were disclosed by the

combination of Lim and Fenger, claims 1-5, 7-10, 16-19, and 21-29 are rejected.

Response to Arguments

28.   Applicant's arguments filed 12/21/2004 have been fully considered but they are

not persuasive.

29.   In response to applicant's arguments that Fenger does not teach connecting a

client computer to the fractional replica wherein the client computer has knowledge of

only the fractional replica, the Examiner respectfully disagrees. Fender disclosed in

Figure 1 (shown below) a client connection to a Secondary Server [replica server] that is

connected to a Primary Server primary server. In addition, the Client has knowledge of

only the replica data stored in Secondary Server. The data portion stored in the Primary

Server that was not replicated onto the Secondary Server was not accessible to the

Client as should be apparent in Figure 1.

Fig. 1

30.   In response to applicant's arguments that Fenger does not teach wherein the replication agreement comprises a list of replicated attribute types held in an element, it is submitted that Fenger disclosed "selecting based on the identification of the target node, a subset of policy information from a superset of policy information, relevant to the target node from the policy tree having a hierarchical data structure; and sending only the selected subset of policy information to the target for implementing the selected policy information at the target" (column 6 lines 48-54) and "targets each containing a respective portion of the subset of the policy database, wherein the subsets of the policy database are replicated to the secondary servers and the portions of the subsets are replicated to the targets based on information describing the targets", thus the replication agreement includes the policy information of replicated attributes that is a subset of a superset of policy information that is relevant to the replication data. Refer to the above rejection for details.

31.   In response to applicant's argument that "Lim teaches that the value to be entered in the database is compared with the value in the change log", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Although Lim taught the comparison feature as discussed by applicant, Lim also disclosed "The above [comparison feature] is one example of a collision and a resulting corrective action. Other types of collisions include, for example, an update to a row that has previously been deleted, inserting a row that has previously been inserted,

and the like. Merge processing must detect and correct each of these collisions. This may be performed using any of a number of well-known methods, and is not discussed further" (column 8 line 65-column 9 lines 5). Lim further disclosed "If a row exists, this indicates that the node in question already has a copy of the referenced Docking Object, and the routine proceeds to step 255, where it exits. If, however, no row exists for the Docking Object at the node being processes, this indicates that the node in question does not have a copy of the Docking Object on its partially replicated database. The routine then proceeds to step 247, where a transaction is generated to direct the node to insert the Docking Object into its partially replicated database" (column 11 lines 37-46). Thus, it should be obvious that the change type maybe from well-known operations such as delete, insert, modify, moddn, etc. Refer to the above rejection for details.

32.   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the client computer in the claimed invention has knowledge of only the fractional replica and not of the data on the primary server (see instant specification page 17, paragraph [0066]") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

33.   As the rejection reads, Examiner asserts that the combination of these teachings render the claimed invention obvious.

Conclusion

34.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

35.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Refer to the enclosed PTO-892 for details

36.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tam (Jenny) Phan whose telephone number is (571)

272-3930. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Cuchlinski can be reached on (571) 272-3925. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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April 25, 2005